



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,202	12/05/2001	Daoben Li	10748-003-999	2155
20583	7590	10/04/2005	EXAMINER	
JONES DAY 222 EAST 41ST ST NEW YORK, NY 10017			TSE, YOUNG TOI	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/008,202

Applicant(s)

LI, DAOBEN

Examiner

YOUNG T. TSE

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28-36 is/are allowed.
- 6) ☒ Claim(s) 17-27 and 38-42 is/are rejected.
- 7) ☒ Claim(s) 1-16 and 37 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12052001</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: the reference signs "350" and "360" shown in Figure 3 and the reference sign "510" shown in both Figures 5 and 6 are not mentioned in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The disclosure is objected to because of the following informalities: page 1, lines 11-15, the Applicant is requested to update the co-pending application which appears to be 10/010,851 filed on December 05, 2001; page 9, line 7, "phased-shifted" should be

Art Unit: 2637

"phase-shifted"; page 16, line 5, "(k = 0, 1, ..., N-1)" should be "(k = 0, 1, ..., N-1)"; page 20, line 5, "k = 0, 1, 2, ..., where" appears to read "k = 0, 1, 2, ..., N, where"; page 21, lines 17 and 25, "s" and "generator" should be "is" and "generator 310", respectively.

Appropriate correction is required.

### ***Claim Objections***

3. Claims 1-27 and 37-42 are objected to because of the following informalities:

In claim 1, line 5, ":", should be "; and".

In line 1 of claims 2-3, 10, 18-19 and 21, "(the step of)" should be "the step of".

In claim 7, line 2, delete one of the periods ".". Also see claims 14 and 25.

In claim 9, line 4, ":", should be "; and".

In claim 13, line 2, "element" should be "elements".

In claim 14, line 2, "equal" should be "equals". Also see claim 25.

In claim 17, line 9, ":", should be "...".

In claim 20, " $b_m^{T_{0n}}$ " and " $b_m^{T_{n}}$ " in the code groups are not shown, see page 19 of the specification. Also see claim 40.

In claim 27, line 6, "1...", should be "1,...".

In claim 37, line 9, "the demodulated data" should be "a demodulated data". Also see claim 39, line 6.

In claim 38, line 4, "a pre-determined" should be "the pre-determined". Also see claim 39.

Wherein the dependent claims 4-6, 8, 11-12, 15-16, 22-24, 26 and 41-42 depend upon claims 1, 9, 17, 20, and 40.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 17-27 and 38-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 17, line 9, "m" is undefined.

In claims 20 and 40, " $b_m^{To}$ " and " $b_m^{Tn}$ " lack antecedent basis. Also see claim 40.

In claim 38, line 3, "k" is undefined and lines 6-7, is "the spread spectrum multiple access code" different than "a pre-determined spread spectrum multiple access code" recited in lines 2-3 and 4-5? Also see claim 39.

Wherein dependent claims 18-19, 21-27 and 41-42 depend upon claims 17, 20 and 40

***Allowable Subject Matter***

6. Claims 28-36 are allowed.
7. Claims 1-16 and 37 would be allowable if rewritten or amended to overcome the objection(s) set forth in this Office action.

8. Claims 17-27 and 38-42 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

9. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to show or suggest that a method or apparatus for generating spread spectrum multiple access codes that is more advanced than the scrambling transformation approach. A real number or complex number sequence of any length can be used to form orthogonal groups of spread spectrum multiple access codes, an initial code group may be used to form code groups that retain the non-periodic auto-correlation and cross-correlation characteristics of the initial code group, and codes in the code groups are completely orthogonal with each other and with codes in the initial code group.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hamada et al. discloses a method for controlling direction of radio-wave emission of a base-station transmitter which emits radio waves upon providing the radio waves with directivity in the direction of a receiver.

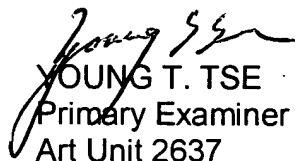
Maru discloses a high-speed search CDMA cellular system for generating symbols which are subjected to spread spectrum coding with a long code in a fixed period to provide symbols which are subjected to spread spectrum coding with a short code.

Li is a copending related invention of spread spectrum multiple access codes for use in a spread spectrum multiple access communications system and a method of generating codes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is (571) 272-3051. The examiner can normally be reached on Monday-Thursday and alternative Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The Central FAX Number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
YOUNG T. TSE  
Primary Examiner  
Art Unit 2637